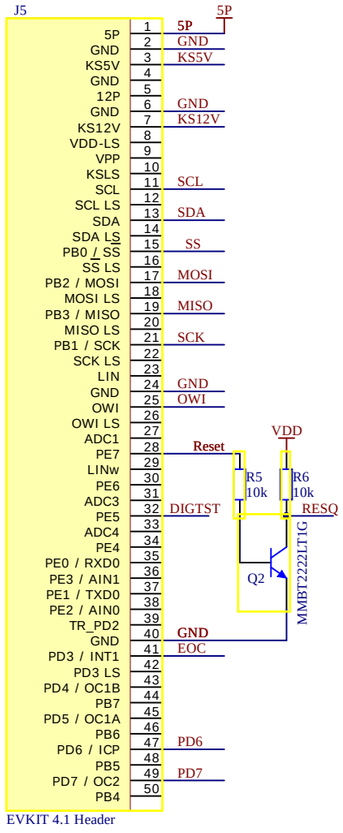
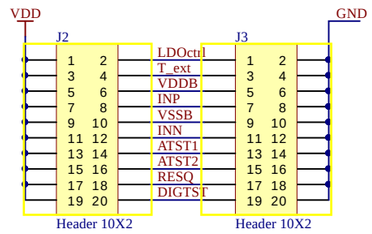
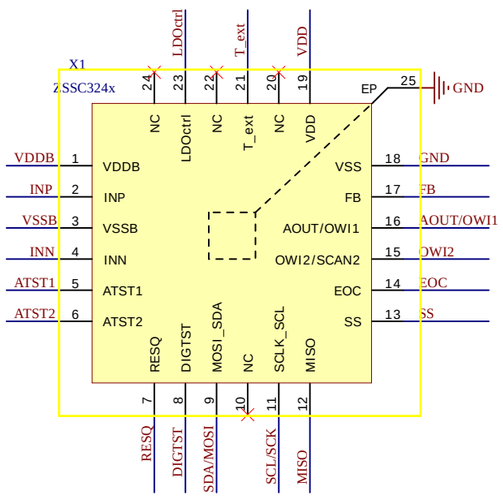
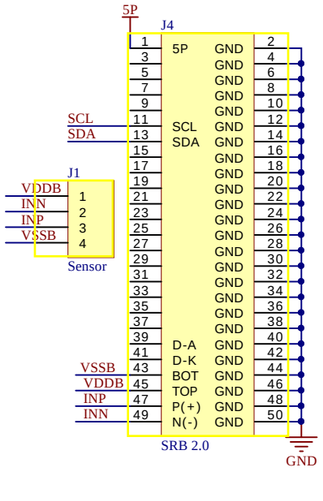
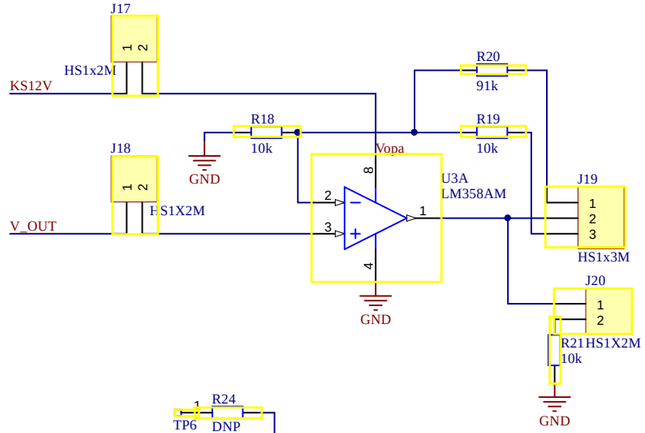
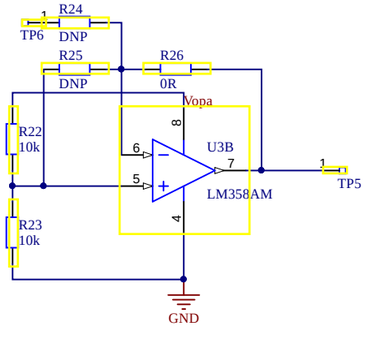


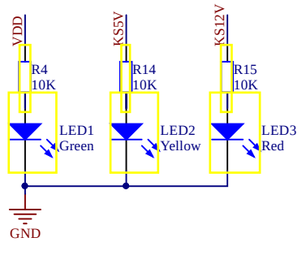


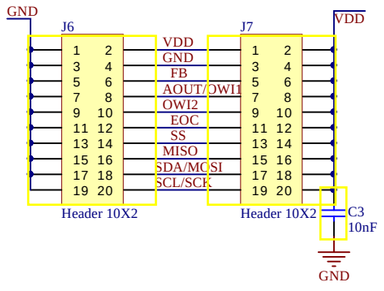


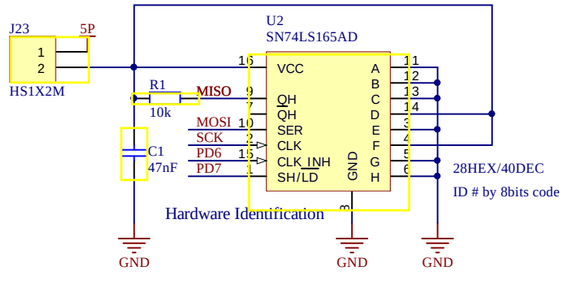


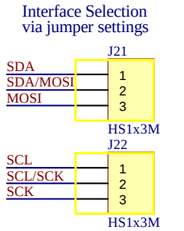


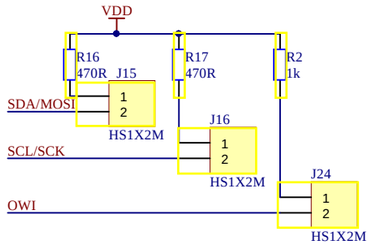


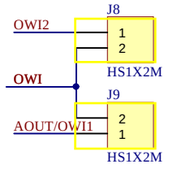


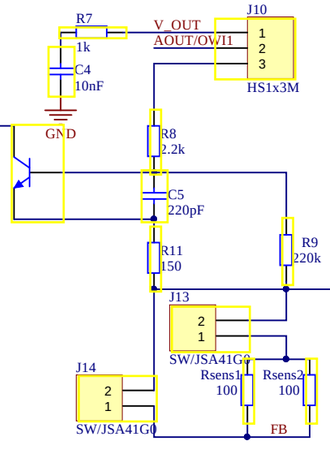


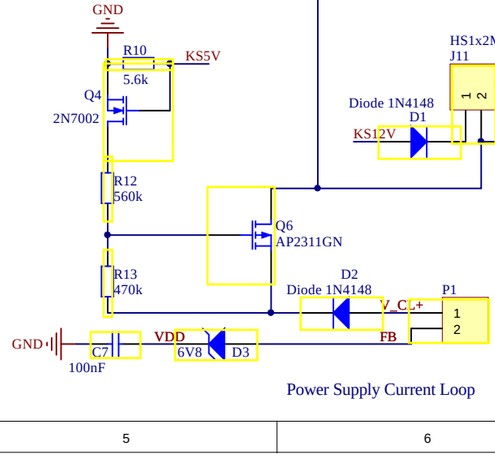




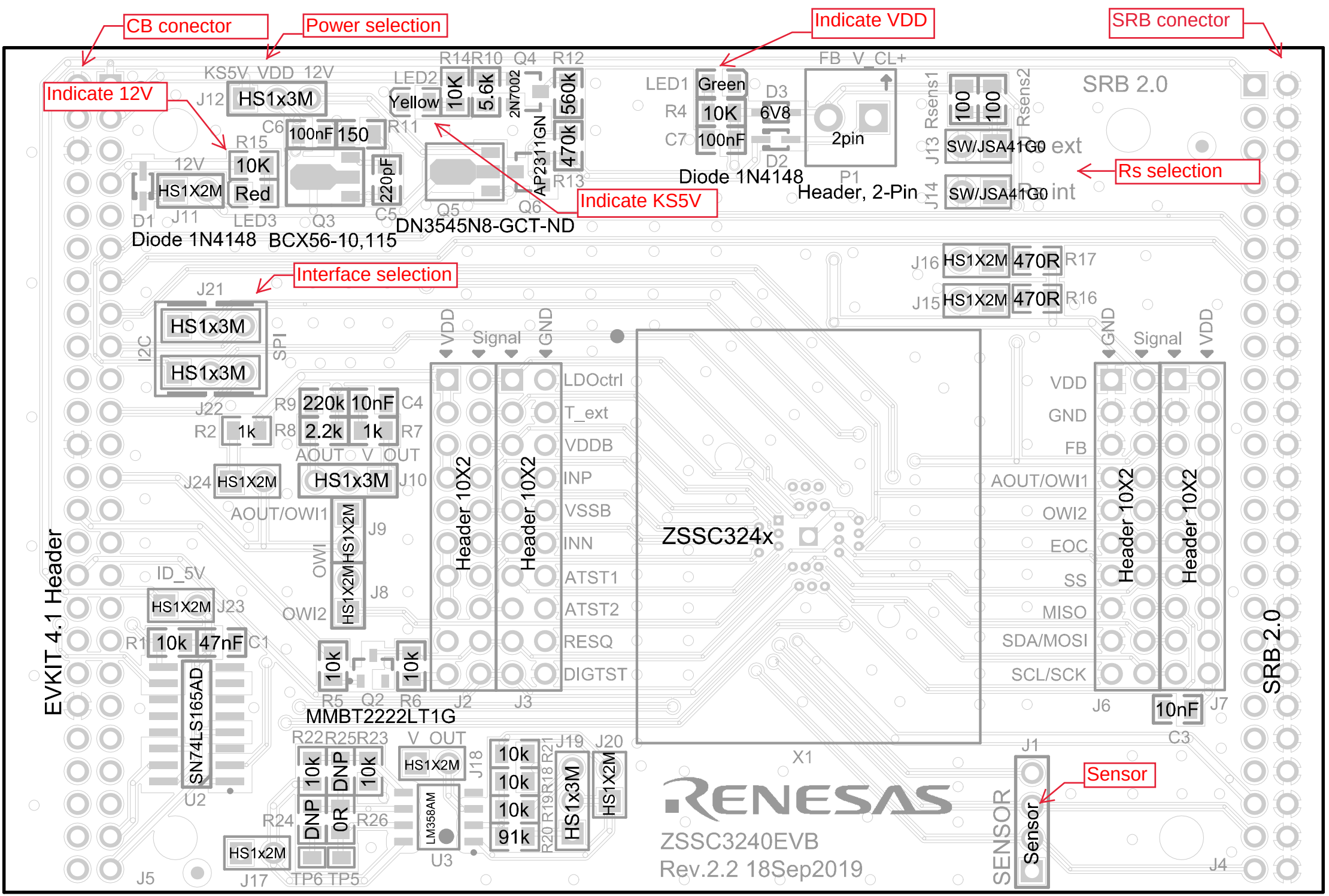








Title: ZSSC3240EVB			RENESAS
Project: ZSSC3240EVB.PrjPcb			
Size: A3	Sheet: 1 of 1	Drawn by:	Revision: 2.2
File: ZSSC3240EVB.SchDoc			Date: 9.4.2020 г.


CB conector
Power selection
Indicate VDD
SRB conector
Indicate 12V
KS5V VDD 12V
J12 HS1x3M
LED2 Yellow
R14 10K
R10 5.6k
Q4 2N7002
R12 560k
R11 470k
R13
AP2311GN
Q5
Q6
DN3545N8-GCT-ND
Indicate KS5V
C6 100nF
R15 10K
12V
HS1X2M
J11
Red
LED3
Q3 BCX56-10,115
C5 220pF
D1
Diode 1N4148
LED1 Green
R4 10K
C7 100nF
D3 6V8
D2
Diode 1N4148
FB V CL+
2pin
P1
Header, 2-Pin
Rsens1
Rsens2
J13 100
100
SW/JSA41G0
J14 SW/JSA41G0
SRB 2.0
ext
int
Rs selection
Interface selection
J21
HS1x3M
HS1x3M
I2C
SPI
J16 HS1X2M 470R R17
J15 HS1X2M 470R R16
J22
R2 1k
R9 220k
10nF C4
R8 2.2k
1k R7
AOUT V OUT
J24 HS1X2M
HS1x3M J10
AOUT/OWI1
OWI
HS1X2M J9
HS1X2M J8
OWI2
ID_5V
HS1X2M J23
R1 10k
47nF C1
SN74LS165AD
U2
R5 10k
Q2
R6 10k
MMBT2222LT1G
VDD
Signal
GND
Header 10X2
J2
J3
LDOctrl
T_ext
VDDB
INP
VSSB
INN
ATST1
ATST2
RESQ
DIGTST
ZSSC324x
X1
VDD
GND
FB
AOUT/OWI1
OWI2
EOC
SS
MISO
SDA/MOSI
SCL/SCK
J6
J7
10nF
C3
EVKIT 4.1 Header
SRB 2.0
R22 10k
R25 DNP
R23 10k
V OUT
HS1X2M
J18
R24 DNP
0R
R26
LM358AM
U3
10k
10k
10k
91k
R20 R19 R18 R21
J19 HS1x3M
J20 HS1X2M
HS1x2M
J17
TP6 TP5
J5
RENESAS
ZSSC3240EVB
Rev.2.2 18Sep2019
J1
Sensor
SENSOR
Sensor
J4

BILL OF MATERIALS ZSSC3240_EVB

No	Name	Type	Package	Manufacturer	Manufacturer Code	pcs.
1	C1	47nF 100V X7R +-10%	C0805	SAMSUNG ELECTRO-MECHANICS	CL21B473KCFNNNF	**1**
2	C3,C4	10nF 50V X7R +-5%	C0805	SAMSUNG ELECTRO-MECHANICS	CL21B103JBANNNC	**2**
3	C5	220pF 50V C0G +-5%	C0805	SAMSUNG ELECTRO-MECHANICS	CL21C221JBNC	**1**
4	C6, C7	100nF 50V X7R +-10%	C0805	SAMSUNG ELECTRO-MECHANICS	CL21B104KBNC	**2**
5	D1, D2	75V 300mA 4ns 2pF	SOD323	DIODES/ZETEX	1N4148WS-7-F	**2**
6	D3	6.8V 200mW	SOD323	ROHM	UDZSTE-176.8B	**1**
7	J1	HN1X4 2.54mm	HS1X4M	CVILUX	CH31042V200	**1**
8	J2,J3,J6,J7	HN2X40 TH, P2.54mm	HS2X10M	CVILUX	HN2X40	**4**
9	J4	2x 25-pin socket terminal strip, angled, RM 2.54	HR2X25M	N.A	N.A	**1**
10	J5	2 x 25-pin header, angled, pitch 2.54	HR2X25F	N.A	N.A	**1**
11	J8, J9, J11, J15, J16, J17, J18, J20, J23, J13,J14,J24	HN1X2	HS1X2M	3M	961102-6404-AR	**12**
12	J10, J12, J19, J21, J22,	HN1X3 TH, P2.54mm	HS1X3M	CVILUX	CH31032V200	**5**
13	LED1	OSG50805C1E	LED0805 G 3D	OPTOSUPPLY INTERNATIONAL	OSG50805C1E	**1**
14	LED2	OSY50805C1E	LED0805 Y 3D	OPTOSUPPLY INTERNATIONAL	OSY50805C1E	**1**
15	LED3	OSR50805C1E	LED0805 R 3D	OPTOSUPPLY INTERNATIONAL	OSR50805C1E	**1**
16	P1	DG350-3.5-02P-14-00AH	HDR 1x2	DEGSON	DG350-3.5-02P-14-00AH	**1**
17	Q2	MMBT2222LT1G. - Bipolar (BJT) Single Transistor, General P	ONSC-SOT-23-3-318-08_L	ON SEMICONDUCTOR	MMBT2222LT1G.	**1**
18	Q3	NPN 80V 1A 1.3W HFE 100-250	SOT89	DIODES/ZETEX	BCX5616TC	**1**
19	Q4	NMOS 60V 0.115A 0.225W, 7.5Ohm/10V	SOT23	ON SEMICONDUCTOR	2N7002LT1G	**1**
20	Q5	DN3545N8-G - MOSFET Transistor, N Channel, 200 mA, 450	SOT89	MICROCHIP	DN3545N8-G	**1**
21	Q6	PMOS 60V 1.8A 1.38W 250mOhm/10V; 300mOhm/4.5V	SOT23	ADVANCED POWER ELECTR. CO	AP2311GN-HF-3TR	**1**
22	R1, R4, R5, R6, R14, R15, R18, R19, R21, R22, R23	RES SMD 0805 5% 10K 1/8W	R0805 3D	UNI OHM	0805S8J0103T50	11
23	R7,R2	RES SMD 0805 5% 200ppm 1.0K 1/8W	R0805 3D	UNI OHM	0805S8J0102T50	2
24	R8	RES SMD 0805 5% 2.2K 1/8W	R0805 3D	UNI OHM	0805S8J0222T50	**1**
25	R9	RES SMD 0805 5% 100ppm 220K 1/8W	R0805 3D	UNI OHM	N.A	1
26	R10	RES SMD 0805 1% 100ppm 5.6K 1/8W	R0805 3D	YAG/ASJ	N.A	**1**
27	R11	RES SMD 0805 5% 200ppm 150R 1/8W	R0805 3D	UNI OHM	0805S8J0151T50	**1**
28	R12	RES SMD 0805 5% 560K 1/8W	R0805 3D	UNI OHM	0805S8J0564T50	**1**
29	R13	RES SMD 0805 5% 470K 1/8W	R0805 3D	UNI OHM	0805S8J0474T50	**1**
30	R16, R17	Резистори SMD 0805 5%	R0805 3D	UNI OHM	0805S8J0471T50	2
31	R20	Res 91K	R0805 3D	UNI OHM	0805S8J0913T50	1
32	R24, R25	DNP	R0805 3D			2
33	R26	RES SMD 0805 JUMPER MAX 2A 50mOhm	R0805 3D	YAG/ASJ	N.A	1
34	Rsens1, Rsens2	RES SMD 0805 5% 100ppm 100R 1/8W	R0805 3D	YAG/ASJ	N.A	**2**
35	U2	SN74LS165AD - SERIAL-OUT SHIFT REGISTERS, 74LC165	SOIC16-3.81-1.27	TEXAS INSTRUMENTS	SN74LS165AD	**1**
36	U3	Low Power Dual Operational Amplifier, 8-pin Narrow SOIC	SO8	ON SEMICONDUCTOR	LM358DR2G	1
37	X1	QFN24 ZIF socket	QFN24 Socket	PLASTRONICS	24LQ50K14040	**1**

Notice

1. Descriptions of circuits, software and other related information in this document are provided only to illustrate the operation of semiconductor products and application examples. You are fully responsible for the incorporation or any other use of the circuits, software, and information in the design of your product or system. Renesas Electronics disclaims any and all liability for any losses and damages incurred by you or third parties arising from the use of these circuits, software, or information.
2. Renesas Electronics hereby expressly disclaims any warranties against and liability for infringement or any other claims involving patents, copyrights, or other intellectual property rights of third parties, by or arising from the use of Renesas Electronics products or technical information described in this document, including but not limited to, the product data, drawings, charts, programs, algorithms, and application examples.
3. No license, express, implied or otherwise, is granted hereby under any patents, copyrights or other intellectual property rights of Renesas Electronics or others.
4. You shall be responsible for determining what licenses are required from any third parties, and obtaining such licenses for the lawful import, export, manufacture, sales, utilization, distribution or other disposal of any products incorporating Renesas Electronics products, if required.
5. You shall not alter, modify, copy, or reverse engineer any Renesas Electronics product, whether in whole or in part. Renesas Electronics disclaims any and all liability for any losses or damages incurred by you or third parties arising from such alteration, modification, copying or reverse engineering.
6. Renesas Electronics products are classified according to the following two quality grades: “Standard” and “High Quality”. The intended applications for each Renesas Electronics product depends on the product’s quality grade, as indicated below.

   "Standard": Computers; office equipment; communications equipment; test and measurement equipment; audio and visual equipment; home electronic appliances; machine tools; personal electronic equipment; industrial robots; etc.

   "High Quality": Transportation equipment (automobiles, trains, ships, etc.); traffic control (traffic lights); large-scale communication equipment; key financial terminal systems; safety control equipment; etc.

   Unless expressly designated as a high reliability product or a product for harsh environments in a Renesas Electronics data sheet or other Renesas Electronics document, Renesas Electronics products are not intended or authorized for use in products or systems that may pose a direct threat to human life or bodily injury (artificial life support devices or systems; surgical implantations; etc.), or may cause serious property damage (space system; undersea repeaters; nuclear power control systems; aircraft control systems; key plant systems; military equipment; etc.). Renesas Electronics disclaims any and all liability for any damages or losses incurred by you or any third parties arising from the use of any Renesas Electronics product that is inconsistent with any Renesas Electronics data sheet, user’s manual or other Renesas Electronics document.
7. No semiconductor product is absolutely secure. Notwithstanding any security measures or features that may be implemented in Renesas Electronics hardware or software products, Renesas Electronics shall have absolutely no liability arising out of any vulnerability or security breach, including but not limited to any unauthorized access to or use of a Renesas Electronics product or a system that uses a Renesas Electronics product. RENESAS ELECTRONICS DOES NOT WARRANT OR GUARANTEE THAT RENESAS ELECTRONICS PRODUCTS, OR ANY SYSTEMS CREATED USING RENESAS ELECTRONICS PRODUCTS WILL BE INVULNERABLE OR FREE FROM CORRUPTION, ATTACK, VIRUSES, INTERFERENCE, HACKING, DATA LOSS OR THEFT, OR OTHER SECURITY INTRUSION (“Vulnerability Issues”). RENESAS ELECTRONICS DISCLAIMS ANY AND ALL RESPONSIBILITY OR LIABILITY ARISING FROM OR RELATED TO ANY VULNERABILITY ISSUES. FURTHERMORE, TO THE EXTENT PERMITTED BY APPLICABLE LAW, RENESAS ELECTRONICS DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THIS DOCUMENT AND ANY RELATED OR ACCOMPANYING SOFTWARE OR HARDWARE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.
8. When using Renesas Electronics products, refer to the latest product information (data sheets, user’s manuals, application notes, “General Notes for Handling and Using Semiconductor Devices” in the reliability handbook, etc.), and ensure that usage conditions are within the ranges specified by Renesas Electronics with respect to maximum ratings, operating power supply voltage range, heat dissipation characteristics, installation, etc. Renesas Electronics disclaims any and all liability for any malfunctions, failure or accident arising out of the use of Renesas Electronics products outside of such specified ranges.
9. Although Renesas Electronics endeavors to improve the quality and reliability of Renesas Electronics products, semiconductor products have specific characteristics, such as the occurrence of failure at a certain rate and malfunctions under certain use conditions. Unless designated as a high reliability product or a product for harsh environments in a Renesas Electronics data sheet or other Renesas Electronics document, Renesas Electronics products are not subject to radiation resistance design. You are responsible for implementing safety measures to guard against the possibility of bodily injury, injury or damage caused by fire, and/or danger to the public in the event of a failure or malfunction of Renesas Electronics products, such as safety design for hardware and software, including but not limited to redundancy, fire control and malfunction prevention, appropriate treatment for aging degradation or any other appropriate measures. Because the evaluation of microcomputer software alone is very difficult and impractical, you are responsible for evaluating the safety of the final products or systems manufactured by you.
10. Please contact a Renesas Electronics sales office for details as to environmental matters such as the environmental compatibility of each Renesas Electronics product. You are responsible for carefully and sufficiently investigating applicable laws and regulations that regulate the inclusion or use of controlled substances, including without limitation, the EU RoHS Directive, and using Renesas Electronics products in compliance with all these applicable laws and regulations. Renesas Electronics disclaims any and all liability for damages or losses occurring as a result of your noncompliance with applicable laws and regulations.
11. Renesas Electronics products and technologies shall not be used for or incorporated into any products or systems whose manufacture, use, or sale is prohibited under any applicable domestic or foreign laws or regulations. You shall comply with any applicable export control laws and regulations promulgated and administered by the governments of any countries asserting jurisdiction over the parties or transactions.
12. It is the responsibility of the buyer or distributor of Renesas Electronics products, or any other party who distributes, disposes of, or otherwise sells or transfers the product to a third party, to notify such third party in advance of the contents and conditions set forth in this document.
13. This document shall not be reprinted, reproduced or duplicated in any form, in whole or in part, without prior written consent of Renesas Electronics.
14. Please contact a Renesas Electronics sales office if you have any questions regarding the information contained in this document or Renesas Electronics products.

(Note1) “Renesas Electronics” as used in this document means Renesas Electronics Corporation and also includes its directly or indirectly controlled subsidiaries.

(Note2) “Renesas Electronics product(s)” means any product developed or manufactured by or for Renesas Electronics.

(Disclaimer Rev.5.0-1 October 2020)

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

Contact Information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit:
www.renesas.com/contact/

Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.